

**Managers and Assets Under Management**  
**State of Hawaii Employees' Retirement System**  
**Risk-Based Policy Framework**

**As of September 30, 2022**

Strategic Class	Sub-Class	Asset Class	Manager / Composite	Assets Under Management (\$)	% of Total Fund	Inception Date
<b>Broad Growth</b>						
	<b>Public Growth</b>					
		Global Equity - Passive	BlackRock	509,450,367	2.36%	06/01/2016
		Global Equity - Passive	Legal & General	643,771,050	2.98%	05/01/2016
		Global Equity - Mid-Large Cap	Alliance Bernstein	528,346,119	2.45%	03/01/2020
		Global Equity - Mid-Large Cap	Longview	681,304,913	3.16%	09/01/2017
		Global Equity - Mid-Large Cap	Wellington	539,369,492	2.50%	03/01/2020
		Global Equity - Small-Mid Cap	Wasatch	439,709,595	2.04%	01/01/2019
		Global Equity - Small-Mid Cap	Wellington	458,511,325	2.13%	04/01/2017
		Global Equity - China	Hillhouse China A Shares	169,593,961	0.79%	05/01/2022
		Global Equity - Options-Based	Gateway	111,716,056	0.52%	09/01/2016
		Global Equity - Low Volatility	Robeco	261,396,386	1.21%	10/01/2016
		Global Equity - Low Volatility	TOBAM	242,949,479	1.13%	10/01/2016
		Convertibles	Lord Abbett	340,477,416	1.58%	05/01/2021
		Global Credit	Carval	239,715,243	1.11%	04/01/2020
		Global Credit	Fortress Lending	80,000,000	0.37%	09/01/2022
		Global Credit	HPS	567,218,984	2.63%	06/30/2019
		Global Credit	Jefferies Direct Lending	15,138,163	0.07%	09/01/2022
		Global Credit	Lafayette Square USA	10,375,000	0.05%	07/01/2022
		Global Credit	OHA	129,341,755	0.60%	07/01/2020
		Global Credit	PIMCO	98,184,280	0.46%	10/01/2021
		Global Credit	SilverRock	328,926,751	1.53%	11/01/2019
	<b>Private Growth</b>					
		Private Equity	Hamilton Lane	3,859,517,799	17.89%	11/01/1997
		Private Equity	Secondary Private Equity	58,688,171	0.27%	07/01/2018
		Private Equity	Direct Private Equity	5,223,879	0.02%	07/01/2021
		HiTIP	Stafford	11,434,680	0.05%	05/01/2009
		HiTIP	Stafford II	44,195,283	0.20%	04/01/2017
		HiTIP	Stafford III	23,316,693	0.11%	02/01/2020
	<b>Real Assets</b>					
		Core Real Estate	Heitman	748,649,109	3.47%	11/01/1995
		Core Real Estate	Heitman Core Real Estate Debt	49,029,399	0.23%	02/01/2018
		Core Real Estate	Invesco Comm Mortgage	97,969,941	0.45%	05/01/2018
		Core Real Estate	Prime Property	220,000,000	1.02%	07/01/2022
		Core Real Estate	RREEF	100,000,000	0.46%	08/01/2022
		Non-Core Real Estate - Opportunistic	AG Asia Realty Fund III	11,491,098	0.05%	07/01/2016
		Non-Core Real Estate - Opportunistic	AG Europe Realty II	46,798,489	0.22%	05/01/2018
		Non-Core Real Estate - Opportunistic	AG Europe Realty III	27,675,797	0.13%	05/01/2020
		Non-Core Real Estate - Opportunistic	BlackRock Asia IV	30,335,848	0.14%	07/01/2017
		Non-Core Real Estate - Opportunistic	BlackSand Capital Fund I	2,009,518	0.01%	09/01/2011
		Non-Core Real Estate - Opportunistic	BlackSand Capital Fund II	15,423,251	0.07%	04/01/2019
		Non-Core Real Estate - Opportunistic	Blackstone Real Estate VII	4,972,813	0.02%	06/01/2012
		Non-Core Real Estate - Opportunistic	Blackstone REP Euro VI	20,504,126	0.10%	12/01/2019
		Non-Core Real Estate - Opportunistic	Blackstone Real Estate IX	57,127,525	0.26%	10/01/2019
		Non-Core Real Estate - Opportunistic	Cerberus IV	38,145,301	0.18%	01/01/2017
		Non-Core Real Estate - Opportunistic	EJF Opzone 1	75,656,854	0.35%	04/01/2020
		Non-Core Real Estate - Opportunistic	Fortress Japan Opp Fund II	3,063,581	0.01%	07/01/2012
		Non-Core Real Estate - Opportunistic	Fortress Japan Opp Fund III	14,097,634	0.07%	01/01/2015
		Non-Core Real Estate - Opportunistic	Fortress Japan Opp Fund IV	11,713,443	0.05%	08/01/2018
		Non-Core Real Estate - Opportunistic	Kayne Anderson V	36,625,821	0.17%	06/01/2018
		Non-Core Real Estate - Opportunistic	Kayne Anderson VI	10,293,174	0.05%	07/01/2021
		Non-Core Real Estate - Opportunistic	KKR Rep Americas II	17,818,520	0.08%	03/01/2018
		Non-Core Real Estate - Opportunistic	Lone Star Fund II	28,347	0.00%	06/01/2011
		Non-Core Real Estate - Opportunistic	Lone Star Fund VII	82,869	0.00%	06/01/2011
		Non-Core Real Estate - Opportunistic	Starwood Fund XI	44,480,407	0.21%	08/01/2018
		Non-Core Real Estate - Opportunistic	Starwood Dis Op XII Glob	11,269,376	0.05%	02/01/2022
		Non-Core Real Estate - Opportunistic	Torchlight Debt Op. Fund V	4,458,524	0.02%	06/01/2015
		Non-Core Real Estate - Opportunistic	Torchlight Debt Fund VI	36,871,615	0.17%	03/01/2018
		Non-Core Real Estate - Opportunistic	Torchlight Debt Fund VII	26,246,539	0.12%	07/01/2020
		Non-Core Real Estate - Value-Add	AG Core Plus Realty Fund III	689,130	0.00%	04/01/2012
		Non-Core Real Estate - Value-Add	AG Core Plus Realty Fund IV	23,503,140	0.11%	06/01/2015
		Non-Core Real Estate - Value-Add	AG Realty Value X	42,900,108	0.20%	11/01/2019
		Non-Core Real Estate - Value-Add	Almanac VI	2,672,541	0.01%	11/01/2012
		Non-Core Real Estate - Value-Add	Almanac VII	24,304,157	0.11%	04/01/2015
		Non-Core Real Estate - Value-Add	Almanac VIII	26,691,954	0.12%	01/01/2019

Source: BNY Mellon. In 04/2022, some non-core real estate funds were reclassified between value-add and opportunistic categories to match consultant report categorization. For performance reporting, this change was made effective as of 7/1/2021.

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<b>Broad Growth</b>						
	<b>Real Assets</b>					
		Non-Core Real Estate - Value-Add	CBRE Strategic Partners Value VII	17,263	0.00%	05/01/2015
		Non-Core Real Estate - Value-Add	CBRE Strategic Partners Value 8	46,821,987	0.22%	10/01/2017
		Non-Core Real Estate - Value-Add	CBRE Strategic Partners Value 9	21,560,746	0.10%	02/01/2020
		Non-Core Real Estate - Value-Add	DRA GR INC IX	28,430,552	0.13%	02/01/2017
		Non-Core Real Estate - Value-Add	DRA GR INC X	27,192,516	0.13%	04/01/2020
		Non-Core Real Estate - Value-Add	GLP Capital IV	39,187,307	0.18%	06/01/2021
		Non-Core Real Estate - Value-Add	Invesco RE VI	16,563,296	0.08%	10/01/2022
		Non-Core Real Estate - Value-Add	LaSalle Income & Growth Fund VII	20,548,814	0.10%	08/01/2016
		Non-Core Real Estate - Value-Add	LaSalle Income & Growth Fund VIII	24,062,005	0.11%	03/01/2020
		Non-Core Real Estate - Value-Add	Mesa West	12,169,427	0.06%	12/01/2021
		Non-Core Real Estate - Value-Add	Mesa West RE Fund IV	5,527,114	0.03%	04/01/2017
		Non-Core Real Estate - Value-Add	Prudential Sr Housing Fund V	25,518,838	0.12%	05/01/2015
		Non-Core Real Estate - Value-Add	Prudential Sr Housing Fund VI	27,765,561	0.13%	09/01/2019
		Infrastructure	KKR Global Infrastructure II	21,314,833	0.10%	12/01/2014
		Infrastructure	KKR Global Infrastructure IV	12,937,814	0.06%	05/01/2022
		Infrastructure	KKR Div Core Infrastructure	151,080,581	0.70%	05/01/2022
		Infrastructure	ISQ Global Infrastructure I	18,933,775	0.09%	06/01/2015
		Infrastructure	ISQ Global Infrastructure II	55,227,561	0.26%	07/01/2018
		Infrastructure	ISQ Global Infrastructure III	4,720,939	0.02%	01/01/2022
		Infrastructure	IFM Global Infrastructure	153,967,326	0.71%	05/01/2022
		Agriculture	PGIM US Agriculture	5,851,139	0.03%	07/01/2022
		Agriculture	UBS Agrivest Farmland	61,487,710	0.29%	10/01/2021
		Timber	Hancock	186,111,397	0.86%	09/01/1999
		Other Real Assets	Morgan Stanley Olomana	556,728,639	2.58%	04/01/2022
<b>Diversifying Strategies</b>						
	<b>Liquid Defensive</b>					
		Defensive Return Capture	36 South	221,198,547	1.03%	03/01/2022
		Defensive Return Capture	AHL Defensive	211,586,439	0.98%	07/01/2021
		Defensive Return Capture	P/E Global	358,106,533	1.66%	04/01/2017
		Defensive Return Capture	SABA	230,696,090	1.07%	04/01/2022
		Systematic Trend Following	AlphaSimplex	355,359,202	1.65%	01/01/2018
		Systematic Trend Following	Aspect	340,047,067	1.58%	04/01/2017
		Systematic Trend Following	Crabel	514,075,933	2.38%	04/01/2017
		Systematic Trend Following	Mount Lucas	339,386,877	1.57%	04/01/2019
		Treasury Duration Capture	Bank of Hawaii	145,517,073	0.67%	11/01/2017
		Treasury Duration Capture	First Hawaiian Bank	145,635,475	0.68%	11/01/1991
		Treasury Duration Capture	SLC Management	322,821,212	1.50%	10/01/2019
	<b>Liquid Diversifying</b>					
		Alternative Return Capture	Brevan Howard	355,806,978	1.65%	11/01/2021
		Alternative Return Capture	Credit Suisse	234,920,284	1.09%	01/01/2022
		Alternative Return Capture	Graham	414,522,642	1.92%	04/01/2017
		Alternative Return Capture	Lombard Odier	209,163,140	0.97%	04/01/2019
		Relative Value Arbitrage	Aequim Arbitrage	61,302,733	0.28%	11/01/2020
		Relative Value Arbitrage	Aequim Relative Value Arbitrage	250,977,337	1.16%	12/01/2020
		Relative Value Arbitrage	Aristeia	308,799,082	1.43%	07/01/2021
		Relative Value Arbitrage	Broad Reach	198,870,376	0.92%	09/01/2022
		Relative Value Arbitrage	Melqart	199,129,704	0.92%	09/01/2022
		Relative Value Arbitrage	Monashee	243,772,491	1.13%	12/01/2020
		Relative Value Arbitrage	Shaolin	272,311,318	1.26%	05/01/2021
		Relative Value Arbitrage	UBS O'Conner	254,226,538	1.18%	01/01/2022
		Relative Value Arbitrage	Weiss	199,002,016	0.92%	09/01/2022
	<b>Illiquid Diversifying</b>					
		Idiosyncratic Return Capture	Blackstone	288,256,805	1.34%	02/01/2021
		Idiosyncratic Return Capture	Cloverlay Leahi	52,343,227	0.24%	01/01/2022
		Idiosyncratic Return Capture	CommonFund Kaala	16,000,000	0.07%	08/01/2022
		Idiosyncratic Return Capture	Petershill IV	9,017,729	0.04%	10/01/2020
		Idiosyncratic Return Capture	MYAM Asia Opportunity	147,348,064	0.68%	03/01/2022
		Idiosyncratic Return Capture	Parabellum Partners III	28,026,776	0.13%	05/01/2022
		Insurance-linked	Nephila	185,061,792	0.86%	01/01/2021
		Insurance-linked	Pillar	209,822,491	0.97%	07/01/2020

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<b>All Other Assets</b>						
	<b>Cash-related</b>					
	Cash Account		Operating Account	314,636,656	1.46%	02/01/1998
	Cash Account		Other Cash	48,542,005	0.23%	01/01/1972
	Cash Account		CRO Transition Account	17,304	0.00%	04/01/2017
	Transition Account I		BNY Mellon	1,086,905	0.01%	04/01/2002
	Transition Account II		BNY Mellon	3,487,399	0.02%	07/01/2011
	Residual Account		BNY Mellon	138,100	0.00%	06/01/2013
	Cash Overlay		Parametric	57,342,671	0.27%	06/01/2019
	<b>Closing Accounts</b>					
	Global Equity - Small Cap		Fidelity	109,242	0.00%	04/01/2017
	World ex-US Equity		Franklin Templeton	97,596	0.00%	11/01/2011
	World ex-US Equity		JP Morgan	44,466	0.00%	09/01/2005
	World ex-US Equity		Mercator	69,487	0.00%	12/01/2003
	Emerging Markets Equity		QMA	1,389,078	0.01%	12/01/2011
	Global Equity - Options-Based		AQR	4,246	0.00%	06/30/2019
	Global Equity - Options-Based		Geode	189,143	0.00%	10/01/2019
	Global Equity - Options-Based		Neuberger Berman	(522,794)	0.00%	10/01/2016
	Global Credit		Western Asset	5,935,905	0.03%	07/01/2005
	Global Credit		PIMCO	6,983,933	0.03%	04/01/2015
	Non-US Intermediate Fixed Income		Eaton Vance	268,458	0.00%	06/01/1989
<b>Total Fund</b>				<b>21,568,131,701</b>	<b>100.00%</b>	

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